

Microsoft® Windows Server™ 2003 Storage Capabilities

The reliable, scalable and low TCO platform for managing enterprise storage resources

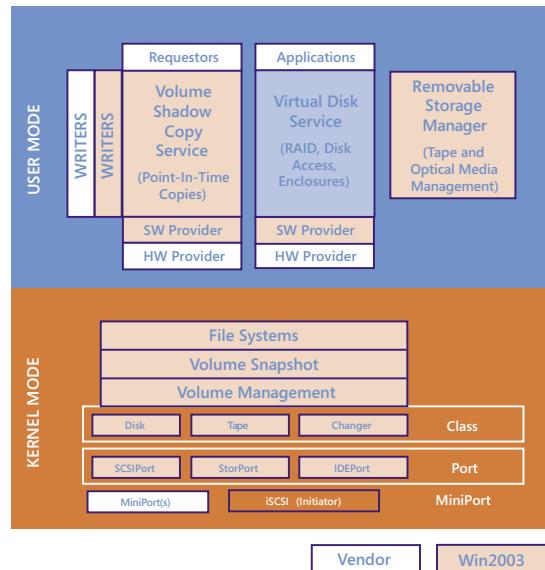
Microsoft® Windows Server™ 2003

- Storage Capabilities Datasheet

Windows Server 2003 delivers an exciting set of customer-focused improvements for managing storage assets across the enterprise. These capabilities include:

- Enhanced support for using Storage Area Networks (SAN).
- Intelligent infrastructure for data protection and rapid recovery solutions.
- Significant improvements in file system, I/O performance and capabilities.
- Data access and interoperability in mixed SAN, Network Attached Storage (NAS) and Directly Attached Storage (DAS) environments.

Windows Storage Stack



Enhanced Support for Using Storage Area Networks

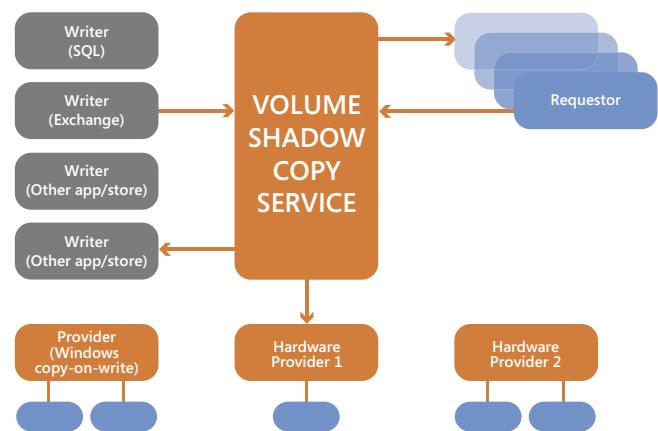
Windows Server 2003 has significant new capabilities that allow more options for administrators to boot from SAN environments and properly configure volumes, along with an enhanced driver model to support SAN devices. Flexible volume mounting

suppresses auto-mounting behaviour, leading to better Windows behaviour in SAN environments. The new StorPort Driver model available with Windows Server 2003 supplements SCSIPort and provides significant enhancements for SAN-attached devices.

Intelligent Infrastructure for Data Protection and Rapid Recovery Solutions

Windows Server 2003 enables best-of-breed solutions for enterprises to protect their important application data, user data and server settings.

VOLUME COPY SHADOW SERVICE (VSS) provides an intelligent infrastructure for creating point-in-time copies (called Shadow Copy) of a single volume or multiple volumes. VSS can produce much higher fidelity Shadow Copies because of its ability to integrate with business applications. It coordinates with storage hardware while business applications are running, thus ensuring minimal impact to end users. VSS also enables powerful new scenarios like zero-downtime backups, open-file backups and near real-time data mining.



AUTOMATED SYSTEM RECOVERY (ASR) can quickly and automatically bring a non-bootable machine to a state where administrators can run a restore program to recover data. Microsoft provides a comprehensive and vendor-extensible ASR solution in Windows Server 2003.

Significant Improvements in File System, I/O Performance and Capabilities

Windows Server 2003 delivers an exciting set of improvements in file services.

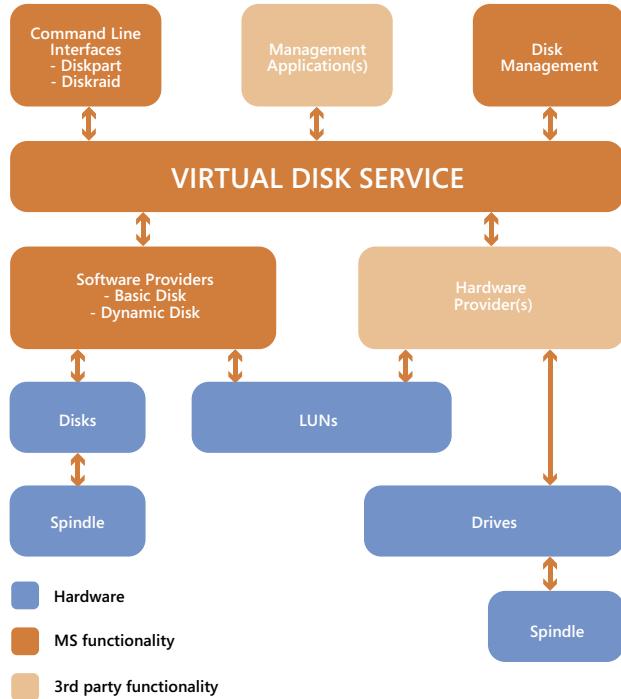
Chkdsk Independent testing by E Testing labs verifies that Chkdsk on Windows Server 2003 is one to two orders of magnitude faster than on earlier server versions. Chkdsk is also not required to be run as often as in past versions.

DISTRIBUTED FILE SYSTEM (DFS) now allows a single server (or clustered servers) to host multiple DFS roots, uses cost information based on Microsoft® Active Directory® to choose between off-site targets to satisfy a client request in a fail-over scenario, and has a reduced memory footprint and faster startup/configuration.

Data Access and Interoperability

Windows Server 2003 greatly enhances the ability of administrators to work with and manage multiple SAN vendor solutions through a unified mechanism and related API set based on the new Virtual Disk Service (VDS).

VDS implements a single, uniform interface for software volume management, LUN masking and device allocation in a SAN. The main focus is on virtualisation while allowing/leveraging innovation in hardware capabilities. VDS gives customers a more robust set of solutions, including greater flexibility for making long-term investment decisions regarding various storage options such as SANs, NAS, DAS and so on.



iSCSI INITIATOR SUPPORT is available for download from Microsoft at www.microsoft.com/windows/storage/iscsi.mspx. A logo program for hardware (HBA) initiators as well as for hardware targets will also be available in 2003. Support will be available for Windows 2000, Windows XP and Windows Server 2003.

MULTI-PATH IO (MPIO) SUPPORT in Windows Server 2003 is delivered through a development kit to storage hardware partners. These partners will enable MPIO solutions implemented through device specific modules which will be supported on Windows 2000 Server and Windows Server 2003. These partner solutions based on MPIO enable up to 32 paths to storage with path failover and optionally load balancing, where supported by the storage device. Multiple MPIO-based solutions can coexist on a single Windows-based server, allowing interoperability for the first time.

For more information

To learn more about Windows Server 2003 storage capabilities visit www.microsoft.com.au/windowsserver/storage